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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,899	11/13/2003	Joun Ho Lee	8733.275.20-US	6109
30827	7590	12/01/2004	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			NGUYEN, HOAN C	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	
			2871	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/705,899

Applicant(s)

LEE ET AL.

Examiner

HOAN C. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 9/16/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's arguments with respect to Amended claim 1 and New claims 22-31 based on the amendment filed on 15 September 2004 have been considered but are moot in view of the new ground(s) of rejection. Therefore, this is Final action.

Applicant cancelled claims 2-21. Therefore, ONLY claims 1 and 22-31 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 22-24, 26-27 and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US6335776B1).

In regard to claims 1, 23-24 and 29, Kim et al. teach (Figs. 3A-B, 4 and 20A-B) a multi-domain liquid crystal display device comprising:

- first and second substrates;
- a liquid crystal layer between the first and second substrates;
- data lines 3 for applying a data signal on the first substrate;

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- gate lines 1 crossing the data lines to apply a gate signal;
- pixel electrodes 13 for driving a liquid crystal of the liquid crystal layer;
- switching devices at each crossing the gate lines and the data lines;
- auxiliary electrode lines 15 formed of the same material of Al, Mo, Cr, Ta or Al alloy as the gate lines (col. 8 lines 52-63);
- a common electrode 17 on the second substrate including opening area in pixel region (claim 23-24).
- a phase differential film (compensation film 29) at least one of the first and second substrates

wherein

Claim 22:

- one of the auxiliary electrode line 15 is formed between the pixel electrode 13 and data line 3 at outside of pixel electrode in a pixel as Fig. 3A shown.

Claims 26-27:

- the liquid crystal layer has a positive dielectric anisotropy or negative dielectric anisotropy (col. 4 lines 59-63).

Claim 30:

- the phase differential film includes a negative uniaxial film (col. 9 lines 53-55).

Claim 31:

- the phase differential film includes a negative biaxial film (col. 9 lines 61-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US6335776B1) as applied to claims 1, 22-24, 26-27 and 29-31 above, in view of Takeda et al. (US 6724452 B1).

Kim fails to disclose a multi-domain liquid crystal display device with a dielectric structure on the second substrate.

Takeda et al. teach a multi-domain liquid crystal display device with a dielectric structure (dielectric protrusion) on the second substrate as domains regulating means for providing the ion adsorption capacity to the dielectric structure.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a multi-domain liquid crystal display device as Kim disclosed with a dielectric structure (dielectric protrusion) on the second substrate as domains regulating means for providing the ion adsorption capacity to the dielectric structure as taught by Takada et al. (col. 73 lines 10-17).

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2. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US6335776B1) as applied to claims 1, 22-24, 26-27 and 29-31 above, in view of Patel (US 5841500 A).

Kim fails to disclose a multi-domain liquid crystal display device with the liquid crystal layer including a chiral dopant.

Patel teaches a multi-domain liquid crystal display device with the liquid crystal layer including a chiral dopant for breaking the symmetry by inducing the twist only in one helical direction, and to thereby avoiding scattering from different domains. This solution is well known in the prior art (col. 3 lines 42-47).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a multi-domain liquid crystal display device as Kim disclosed with the liquid crystal layer including a chiral dopant for breaking the symmetry by inducing the twist only in one helical direction, and to thereby avoiding scattering from different domains as taught by Patel (col. 3 lines 42-47).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim H Robert can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HOAN C. NGUYEN
Examiner
Art Unit 2871

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TARIFUR R. CHOWDHURY
PRIMARY EXAMINER